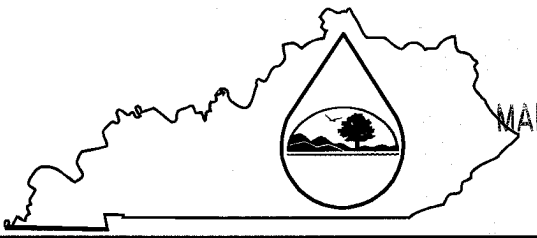
KPDES FORM HQAA



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Kentucky Pollutant Discharge Elimination System (KPDES)

High Quality Water Alternative Analysis

The Antidegradation Implementation Procedures outlined in 401 KAR 5:030, Section 1(3)(b)5 allows an applicant who does not accept the effluent limitations required by subparagraphs 2 and 3 of 5:030, Section 1(2)(b) to demonstrate to the satisfaction of the Environmental and Public Protection Cabinet that no technologically or economically feasible alternatives exist and that allowing lower water quality is necessary to accommodate important economic or social development in the area in which the water is located. The approval of a POTW's regional facility plan pursuant to 401 KAR 5:006 shall demonstrate compliance with the alternatives analysis and socioeconomic demonstration for a regional facility. This demonstration shall also include this completed form and copies of any engineering reports, economic feasibility studies, or other supporting documentation

I. Permit Information

Facility Name:	LABCO, LLC DMRE Permit No. 898-0729 AM #2	**KPDES NO.:**	KY0105953
Address:	P.O. Box 560, 220 Cumberland Avenue	**County:**	Pike
City, State, Zip Code:	Elkhorn City, Ky. 41522	**Receiving Water Name:**	Beaver Creek, Lower Branch, Russell Fork

II. Alternatives Analysis - For each alternative below, discuss what options were considered and state why these options were not considered feasible.

1. **Discharge to other treatment facilities.** Indicate which treatment works have been considered and provide the reasons why discharge to these works is not feasible.

The project area is located in a rural area in which no existing treatment works are available. Residents in the area do not have access to a municipal sewage system; thus, they discharge wastewater to septic systems or directly to local streams or rivers.

The proposed life of the operation is 9 months. Construction of a water treatment plant to treat discharges from the mining area for this limited amount of time is cost prohibitive.

The nearest wastewater treatment plant is in Pikeville, KY, approximately 35 northwest of the project area. This plant is classified as a small capacity plant. Thus, it is not designed to handle the quantity of discharge from the project area and there are no lines from the project area to the plant. Because of the distance and cost associated with constructing a line from the project area to the plant, this alternative was eliminated from consideration.

2. **Use of other discharge locations.** Indicate what other discharge locations have been evaluated and the reasons why these locations are not feasible.

As an alternative to discharging into Beaver Creek and Lower Branch, LABCO, LLC examined discharging drainage and runoff into an unnamed tributary of Beaver Creek (Lat. 37° 18' 57", Long. 82° 21' 00"), which is the nearest adjacent drainage to the project area. However, any discharge into this unnamed tributary would still, ultimately discharge into Russell Fork as would any discharge into Beaver Creek and Lower Branch.

Therefore, this alternative discharge location would not prevent lowering water quality in Beaver Creek. Other alternative discharge locations such as the unnamed tributaries of Beaver Creek, Lower Branch and Russell Fork would also ultimately discharge into Russell Fork. Therefore, alternative discharge locations were eliminated. LABCO, LLC examined subsurface discharge into mine voids. Refer to Question 5 for additional information regarding this alternative.

II. Alternatives Analysis - continued

3. **Water reuse or recycle.** Provide information about opportunities for water reuse or recycle at this facility. If water reuse or recycle is not a feasible alternative at this facility, please indicate the reasons why.

The proposed project area is a surface mining operation, which will recover coal reserves by the contour and area methods of mining. Water is not an integral part of surface mining operations. Additionally, there are no other operations on-site or near-site in which water is used as part of the process. Therefore, the reuse or recycle of water is not a practical alternative to discharging water from the project area.

However, discharge from the project area will be recycled as practicable. Water in the project area can be used as a means of dust suppression on the roads. This will have a positive impact on local residents and local road usage.

4. **Alternative process or treatment options.** Indicate what process or treatment options have been evaluated and provide the reasons they were not considered feasible.

Several alternatives to treating water from the project area and discharging it to streams and rivers in the area have been evaluated. Each of the alternatives was eliminated as they were not feasible.

1) Waste Water Treatment Plant – this alternative is not feasible due to the cost associated with construction of the plant. The proposed operation has a projected life of only 9 months. Thus, it is not economically feasible to construct a treatment plant for a project of this limited life.

2) Subsurface Disposal – water will accumulate over time as the streams in the project area are intermittent streams. Thus subsurface disposal is not a feasible long-term treatment method.

3) Recycle/Reuse – water is not used in the coal mining process. Thus, water is not needed in order to mine the project area. Therefore, recycling or reusing water from the project area is not a feasible alternative for treating it.

4) Wetland – construction of a wetland to treat water discharged from the project area is not a feasible alternative. The primary need for treatment of the water is sedimentation and wetlands are not effective for treating sediment. Additionally, a wetland used for water treatment would require a great deal of space, which is not available in this project area. Thus, use of a wetland for water treatment is not a feasible alternative.

II. Alternatives Analysis - continued

5. **On-site or subsurface disposal options.** Discuss the potential for on-site or subsurface disposal. If these options are not feasible, then please indicate the reasons why.

An alternative to surface discharge from the project area is subsurface disposal. There are several mine voids in the vicinity of the project area as deep mining has been conducted in the Clintwood seam and the Lower Elkhorn seam. However, deep mining continues to be conducted in these seams in the vicinity of the project area. Therefore, the subsurface disposal of drainage from the project area presents safety concerns for current deep mining operations.

The Clintwood and Lower Elkhorn seams are above drainage in the project area. Thus, subsurface disposal in these seams could present safety concerns such as blowouts. Therefore, this alternative was eliminated.

In addition to potential safety impacts associated with subsurface disposal, this alternative would reduce the quantity of water available to support downstream aquatic communities. Thus, there would be potential impacts to fish and other aquatic communities.

6. **Evaluation of any other alternatives to lowering water quality.** Describe any other alternatives that were evaluated and provide the reasons why these alternatives were not feasible.

The stormwater will be maintained in dugout ponds prior to discharge. This will allow settling to occur so that lowering of water quality will be reduced based on applicable regulations concerning discharges from the project site. It is not feasible to store the water on-site, dispose of it below the surface, or construct a treatment facility for a short –term project.

Chemical treatment of the discharge will be used as is practicable to reduce lowering water quality in the project area. However, it is not feasible to use chemical treatment to wholly prevent reductions in water quality because of the costs associated with the treatment and the facilities necessary for the treatment.

LABCO, LLC has evaluated other alternatives such as silt fences and hay bales to prevent sediment from reaching streams in the project area. However, it was determined these methods would be incapable of handling the quantity of surface drainage and runoff. Therefore, alternatives to lowering water quality were eliminated.

III. Socioeconomic Demonstration

1. State the positive and beneficial effects of this facility on the existing environment or a public health problem.

Following the conclusion of mining, the area will be reclaimed, providing an enhanced habitat and environment. Additionally, recovery of the coal will increase severance tax revenues, which will be returned to the community.

This money can be used for environmental protection such as sewage disposal, sanitation and solid waste disposal, which will have beneficial effects on the existing environment.

2. Describe this facility's effect on the employment of the area

The surface mine will increase employment in the area and provide higher paying jobs than other industries in the county. Mining pays an verage weekly wage of $887.27 in Pike County. This is compared to an average industry weekly wage of $547.27 (2003 US Bureau of Labor Statistics).

3. Describe how this facility will increase or avoid the decrease of area employment.

The facility will avoid a decrease in the area's employment by providing jobs at a new mine, which will replace jobs at an existing facility upon closure. Operation of the facility will increase the area's employment by requiring services such as equipment sales and repair, engineering services, fuel transportation etc.

It is likely that a new mine will lead to an increase in employment, but at the very least, the mine will avoid a decrease in employment.

4. Describe the industrial or commercial benefits to the community, including the creation of jobs, the raising of additional revenues, the creation of new or additional tax bases.

The surface mine will provide new jobs and prevent the loss of jobs when an existing facility closes. Recovery of coal along Beaver Creek and Russell Fork will require payment of severance taxes, which will be returned to the community to provide funds to establish alternative industries, as well as provide for public safety, environmental protection, public transportation, vocational training, health/recreational/educational facilities, social services, industrial/economic development, workforce training and secondary wood industry.

Property values increase when land is active. Therefore, when mining is being conducted, the land has an increased value requiring increased property taxes to be paid.

5. Describe any other economic or social benefits to the community.

The facility will require supporting jobs as well as mining jobs. Equipment sales and repair, mining and engineering consultants, along with fuel and transportation providers will be needed as a result of the mine. The creation of jobs will spur community development, thus creating more jobs.

The increased payments of property taxes will benefit schools so that they have better equipment and facilities and better paid employees. In addition, the increased tax payments will provide additional money for government services to better serve the citizens of the local community.

III. Socioeconomic Demonstration - continued

	Yes	No
6. Will this project be likely to change median household income in the county?	X	☐
7. Will this project likely change the market value of taxable property in the county?	X	☐
8. Will this project increase or decrease revenues in the county?	X	☐
9. Will any public buildings be affected by this system?	☐	X

10. How many households will be *economically* or *socially* impacted by this project?

It is anticipated that approximately 6 workers will be employed by the project. Thus 6 households will be directly affected by the operation. These households will, in turn, affect numerous households by purchasing goods and services in the area.

11. How will those households be *economically* or *socially* impacted? (For example, through creation of jobs, educational opportunities, or other social or economic benefits.)

A number of households will be positively impacted as a result of the project. New jobs will be created in addition to maintaining existing jobs. Thus, several households will receive direct income as a result of the project. Additionally, several other households will receive income as an indirect impact from the project: retailers, engineering services, fuel/transportation providers, etc.

The project will cause severance tax and property tax revenues to increase in the area. Thus, several households will be positively impacted by the government services that will be funded by the increased tax revenues.

The coal mined by the project will be used to generate electricity. Thus countless homes will be impacted as a result of the electricity.

	Yes	No
12. Does this project replace any other methods of sewage treatment to existing facilities? (If so describe how)	☐	X

The proposed project is a surface mining operation and the proposed discharges are the result of drainage from the mining area. The discharge will not be sewage. Thus, this project will not replace any methods of sewage treatment.

	Yes	No
13. Does this project treat any existing sources of pollution more effectively? (If so describe how.)	☐	X

Currently, water is discharged from the proposed permit area without passing through any sort of sediment and drainage control structure. The affected watersheds have been previously mined; thus there is sediment being discharged unabated from the project area.

The proposed dugouts will collect sediment and drainage as it discharges from a mining area. Sediment will settle out of the water before it is discharged downstream from the project area. Discharges from the dugouts will be required to comply with applicable regulations.

III. Socioeconomic Demonstration - continued

	Yes	No
14. Does this project eliminate any other sources of discharge or pollutants? (If so describe how.)	☐	X

The dugouts will capture drainage and sediment from the watersheds allowing time for settling to occur so that sediment will decrease in the discharge from the project area. Currently the water is discharged form the project area without passing through any sort of sediment and drainage control structure. The watersheds have been previously mined; thus, there is sediment being discharged unabated from the project area. Therefore, this project will aid in treatment of existing sources of pollutants.

15. How will the increase in production levels positively affect the socioeconomic condition of the area?

The increase in production levels will be the direct result of coal mining. The mining operation will provide employment, income and tax revenue. Thus, the standard of living of many households may increase and the services provided by governments in the county will also improve as a result of the mining operation. The severance taxes can be used to develop industries to sustain the local economy when coal mining is no longer viable.

Additionally these taxes can be used to provide public safety (law enforcement, fire protection, ambulance services), environmental protection (sewage disposal, sanitation, solid waste), public transportation, health, recreation, libraries and educational facilities, social services, industrial and economic development, vocational education and workforce training. If mining were not permitted and developed, severance taxes would not be paid and a variety of services would not be provided.

16. How will the increase in operational efficiency positively affect the socioeconomic condition of the area?

The facility (a surface mine) will not cause an increase in operational efficiency. However, the project will provide employment to approximately (6) workers during the life of the operation. Also, the project will provide additional jobs in other sectors of the economy such as engineering, fuel and transportation. The project will be located in a rural, impoverished area desperately in need of jobs. Wages in the mining industry are significantly greater than the average wage in the county (refer to Question 2 above). Thus, mining operations positively affect the local economy more so than other industries. Therefore, lowering water quality should be accepted in light of the social and economic benefits derived from the proposed mining operation.

IV Certification: I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

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Signature:	Vicki Salyer	**Date:**	1/3/08